Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A light-emitting device, comprising:

a multi-layer stack of materials including a light-generating region and a first layer supported by the light-generating region; and

a support,

wherein:

the light-generating region is between the first layer and the support;

a surface of the first layer is configured so that light generated by the light-generating region can emerge from the light-emitting device via the surface of the first layer;

the surface of the first layer has a dielectric function that varies spatially according to a pattern;

the pattern is formed of holes in the surface of the first layer; and

the pattern is configured so that light generated by the light-generating region that emerges from the light-emitting device via the surface of the first layer is more collimated than a Lambertian distribution of light.

2. (Original) The light-emitting device of claim 1, wherein, when light generated by the light-generating region emerges from the light-emitting device via the surface of the first layer, at least about 40% of the light emerging via the surface of the first layer emerges within at most about 30° of an angle normal to the surface of the first layer.

3. (Original) The light-emitting device of claim 1, wherein the filling factor of the light-emitting device is at least about 10%.

4. (Original) The light-emitting device of claim 3, wherein the filling factor of the light-emitting device is at most about 75%.

5-6. (Cancelled).

7. (Currently Amended) The light-emitting device of claim ~~6~~ 1, further comprising a layer of reflective material that is capable of reflecting at least about 50% of light generated by the light-generating region that impinges on the layer of reflective material, the layer of reflective material being between the support and the multi-layer stack of materials.

8. (Original) The light-emitting device of claim 7, wherein the reflective material is a heat sink material.

9. (Original) The light-emitting device of claim 8, wherein the heat sink material is configured so that the heat sink material has a vertical heat gradient during use of the light-emitting device.

10. (Original) The light-emitting device of claim 7, further comprising a heat sink material.

11. (Original) The light-emitting device of claim 10, wherein the heat sink material is configured so that the heat sink material has a vertical heat gradient during use of the light-emitting device.

12. (Original) The light-emitting device of claim 1, further including a current-spreading layer between the first layer and the light-generating region.

13. (Original) The light-emitting device of claim 1, further comprising electrical contacts configured to inject current into the light-emitting device.

14. (Original) The light-emitting device of claim 13, wherein the electrical contacts are configured to vertically inject electrical current into the light-emitting device.

15. (Original) The light-emitting device of claim 1, wherein the light-emitting device is selected from the group consisting of light-emitting diodes, lasers, optical amplifiers, and combinations thereof.

16. (Original) The light-emitting device of claim 1, wherein the light-emitting device comprises a light emitting diode.

17. (Original) The light-emitting device of claim 1, wherein the light-emitting device is selected from the group consisting of OLEDs, flat surface-emitting LEDs, HBLEDs, and combinations thereof.

18. (Original) The light-emitting device of claim 1, wherein the pattern has an ideal lattice constant and a detuning parameter with a value greater than zero.

19. (Original) The light-emitting device of claim 1, wherein the pattern does not extend into the light-generating region.

20. (Original) The light-emitting device of claim 1, wherein the pattern does not extend beyond the first layer.

21. (Original) The light-emitting device of claim 1, wherein the pattern extends beyond the first layer.

22-23. (Cancelled).

24. (Original) The light-emitting device of claim 1, wherein the pattern is a nonperiodic pattern or a complex periodic pattern.

25. (Currently Amended) A wafer, comprising:

a plurality of light-emitting devices, at least some of the light-emitting devices comprising:

a multi-layer stack of materials including a light-generating region and a first layer supported by the light-generating region; and

a support,

wherein:

the light-generating region is between the first layer and the support;

a surface of the first layer ~~being~~ is configured so that light generated by the light-generating region can emerge from the light-emitting device via the surface of the first layer~~,~~;

the surface of the first layer ~~having~~ has a dielectric function that varies spatially according to a pattern~~,~~; ~~and~~

the pattern is formed of holes in the surface of the first layer;

the pattern ~~being~~ is configured so that light generated by the light-generating region that emerges from the light-emitting device via the surface of the first layer is more collimated than a Lambertian distribution of light~~,~~; and

~~wherein~~ the wafer includes at least about five light-emitting devices per square centimeter.

26. (Original) The wafer of claim 25, wherein the wafer includes at least about 25 light-emitting devices per square centimeter.

27. (Original) The wafer of claim 25, wherein the wafer includes at least about 50 light-emitting devices per square centimeter.

28. (Previously presented) The light-emitting device of claim 1, wherein the surface of the first layer has features with a size of less than about $\lambda/5$, where λ is a wavelength of light that can be generated by the light-generating region and that can emerge from the light-emitting device via the surface of the first layer.

29. (Previously presented) The wafer of claim 25, wherein the surface of the first layer has features with a size of less than about $\lambda/5$, where λ is a wavelength of light that can be generated by the light-generating region and that can emerge from the light-emitting device via the surface of the first layer.

30. (New) The light-emitting device of claim 1, wherein the dielectric function varies spatially according to a nonperiodic pattern.

31. (New) The light-emitting device of claim 1, wherein the dielectric function varies spatially according to a complex periodic pattern.

32. (New) The light-emitting device of claim 1, wherein the dielectric function varies spatially according to a quasicrystalline pattern.

33. (New) The wafer of claim 25, wherein, for the at least some of the light-emitting devices, the pattern has an ideal lattice constant and a detuning parameter with a value greater than zero.

34. (New) The wafer of claim 25, wherein, for the at least some of the light-emitting devices, the dielectric function varies spatially according to a nonperiodic pattern.

35. (New) The wafer of claim 25, wherein, for the at least some of the light-emitting devices, the dielectric function varies spatially according to a complex periodic pattern.

36. (New) The wafer of claim 25, wherein the dielectric function varies spatially according to a quasicrystalline pattern.